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[4918]-305

T.Y. B.Sc. (Computer Science) (Third Semester) EXAMINATION, 2016

CS-335 : PROGRAMMING IN JAVA-I

Paper V

(2013 PATTERN)

Time : Two Hours

Maximum Marks : 40

N.B. :— (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

(iii) Neat diagrams must be drawn wherever necessary.

1. Attempt All of the following :

[10×1=10]

- (a) Define final variable with an example.
- (b) List any four layout managers.
- (c) What is 'this' ? Give example.
- (d) Name any four tags of Javadoc.
- (e) Write any two advantages of inner class.
- (f) What is Applet Viewer ?
- (g) What is the basic difference between 'throw' and 'throws' keywords.
- (h) "Super keyword is used by subclass to refer its immediate superclass." State true or false. Justify.
- (i) Define AWT and swing.
- (j) Give two ways to create string object with an example.

2. Attempt any *two* of the following :

[2×5=10]

- (a) Explain features of Java in detail.
- (b) Write a note on Garbage collection.
- (c) Write a Java program to set background colour of dialog box using Jcolor chooser.

3. Attempt any *two* of the following :

[2×5=10]

- (a) Write a Java program to illustrate multilevel inheritance such that state is inherited from country. City is inherited from state. Display the areas, city, state and country.
- (b) Write a Java program to count number of whitespace character in character stream.
- (c) Explain various ways to read input string from console or keyboard.

4. Solve A *or* B of the following :

- (A) (a) Write a Java program to copy a file to another file. Use proper error handler to handle runtime exception. File names are accepted as argument from command prompt.

[5]

- (b) Explain different types of streams.

[3]

- (c) Define anonymous class.

[2]

Or

- (B) (a) Write a note on applet life cycle.

[5]

- (b) Explain object cloning with *one* example.

[3]

- (c) What is an event ? What is an event handling ?

[2]

Total No. of Questions—4]

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T.Y. B.Sc. (Third Semester) EXAMINATION, 2016

COMPUTER SCIENCE

Paper V

(CS-335 : Programming in Java—I)

(2013 PATTERN)

Time : Two Hours

Maximum Marks : 40

- N.B. :—**
- (i) All questions are compulsory.
 - (ii) All questions carry equal marks.
 - (iii) Figures to the right indicate full marks.

1. Attempt *All* of the following : [1×10=10]
- (a) What is JavaP ?
 - (b) What is Array ? How to create an array of elements of double type ?
 - (c) Can we overload main() method in Java ? Justify.
 - (d) Write a signature of finalize() method.
 - (e) What is the use of super keyword ?
 - (f) What is the use of finally keyword ?
 - (g) List any *four* layout managers in Java.
 - (h) What is package ? How to create a package ?
 - (i) List constructors of JText Area Class (any *two*).
 - (j) What are the advantages of Inner Classes (any *two*) ?

P.T.O.

2. Attempt any *two* of the following : [2×5=10]

- (a) Differentiate between Java and C++.
- (b) What is interface ? How does it differ from an abstract class ? Explain.
- (c) Write a Java program to get file name from command prompt. Check whether a file by given name exists. If file is a regular file, then display various details about that file. But if it is a directory, then display number of files in that directory.

3. Attempt any *two* of the following : [2×5=10]

- (a) What is object cloning ? Explain with example.
- (b) List and describe any *five* methods of Reader class along with their syntax.
- (c) Explain JOptionPane class with their static methods.

4. Attempt (A or B) of the following :

- (A) (a) Write a Java Program that contains a class Account with acc_no, name and balance as fields. accept(), withDraw(), deposit() as methods. If balance < 500 than raise exception "MinimumBalanceException". If name contains digits than raise exception "InvalidNameException". [5]
- (b) Write a note on Applet tags. [3]
- (c) Explain any *two* methods of string class with example. [2]

Or

- (B) (a) Design a screen in Java using AWT to handle the mouse events and display the positions of mouse click in text-box. [5]
- (b) Explain garbage collection in Java. [3]
- (c) What is the use of static methods and static variables ? [2]

Total No. of Questions—4]

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[5116]-305**T.Y. B.Sc. (Third Semester) EXAMINATION, 2017****COMPUTER SCIENCE****Paper V****(CS-335 : Programming in Java—I)****(2013 PATTERN)****Time : Two Hours****Maximum Marks : 40****N.B. :—** (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

(iii) All questions carry equal marks.

1. Attempt all of the following :**[10×1=10]**

- (a) What is Javadoc ?
- (b) List primitive data types in Java with their width in bits.
- (c) What is the use of this keyword in Java ?
- (d) What is AutoBoxing and unboxing ?
- (e) What is assertion ?
- (f) What is the use of final keyword ?
- (g) What is an adapter class ?
- (h) One interface can implement another interface. True/False—
Justify.
- (i) List any four methods of JButton class.
- (j) Differentiate '==' and equals().

P.T.O.

2. Attempt any *two* of the following : [2×5=10]
- (a) Why is Java called purely object oriented programming language ? Explain features of Java.
 - (b) Create an abstract class `Order` having members `id` and `description`. Create two subclasses `PurchaseOrder` and `SalesOrder` with member `customer name` and `vendor name` respectively. Define methods `accept` and `display` in all classes. Create 5 objects each of `PurchaseOrder` and `SalesOrder`. Accept and display details.
 - (c) Write a Java program to accept a file name from command prompt. If the file exists, then display number of words and lines in that file using `FileReader` class.
3. Attempt any *two* of the following : [2×5=10]
- (a) What is wrapper class ? Explain with example.
 - (b) List and describe any *five* methods of `InputStream` class along with their syntax.
 - (c) Explain `JComboBox` class with their constructor and methods.
4. Attempt 'A' or 'B' of the following :
- (A) (a) Write a Java program to accept email address of a user and throw a user defined exception `InvalidEmailException` if it starts with digit or does not contain `@` symbol. [5]

- (b) Explain in detail the Applet life cycle with diagram. [3]
(c) Differentiate String and StringBuffer classes. [2]

Or

- (B) (a) Write a Java program using AWT to print "Welcome to T.Y. B.Sc. Computer Science" with Times New Roman font face and size is 16 in Red Color. When we click on a button text color should change to Blue. [5]
(b) Explain method overriding with example. [3]
(c) What is Package ? How to create a package ? Give example. [2]